Claims

1. A steel composition, characterized in that it comprises the following components in % by weight:

C: 0.12-0.45
Si: 0.10-1.00
Mn: 0.50-1.95
S: 0.005-0.060
Al: 0.004-0.050
Ti: 0.004-0.050
Cr: 0-0.60
Ni: 0-0.60
Co: 0-0.60
W: 0-0.60
B: 0-0.01
Mo: 0-0.60
Cu: 0-0.60
Nb: 0-0.050
V: 0.10-0.40
N: 0.015-0.040

Remainder: Fe and unavoidable impurities

with the proviso that:

1) wt% V x wt% N = 0.0021 to 0.0120

2) 1.6x wt% S + 1.5x wt% Al + 2.4x wt% Nb + 1.2x wt% Ti = 0.035 to 0.140

3) 1.2x wt% Mn + 1.4x wt% Cr + 1.0x wt% Ni + 1.1x wt% Cu + 1.8x wt% Mo = 1.00 to 3.50

2. A die-formed part made of steel, characterized in that the steel has a composition according to claim 1.

3. A method of producing a die-formed part according to claim 2, comprising the steps of:

   (a) heating the ingoing material made of a steel composition according to claim 1 to a temperature of 1,000 to 1,300°C;

   (b) forming the ingoing material of step (a) by forging;

   (c) cooling the die-formed part obtained in step (b) to room temperature, wherein the cooling rate in the temperature range to 580°C is at least 0.2°C/s.

4. A method according to claim 3, characterized in that the cooling in step (c) occurs at a cooling rate of 0.2°C/s to 0.6°C/s until a temperature of 580°C.

5. A method according to claim 3, characterized in that the cooling in step (c) occurs at a cooling rate of 0.7°C/s to 6°C/s until a temperature of 580°C.

6. The use of the die-formed part obtainable by the method according to one of claims 3 to 5 as a chassis part for commercial vehicles.

7. The use of the die-formed part obtainable by the method according to claim 5 as a chassis part for passenger cars.